

CLAIMS

July 01 >
1. A vector comprising (1) a promoter functioning in the presence of a specific transcription factor and a gene encoding a recombinase present under the control of the promoter, and (2) an expressible desired gene and two target sequences of the recombinase present near the gene, wherein the desired gene and the two target sequences are so located that the desired gene will not be expressed when recombination occurs between the two target sequences.

2. The vector according to claim 1, wherein (1) a promoter functioning in the presence of a specific transcription factor and a gene encoding a recombinase present under the control of the promoter, and (2) an expressible desired gene and two target sequences of the recombinase present near the gene are present in the same molecule.

3. The vector according to claim 1, wherein (1) a promoter functioning in the presence of a specific transcription factor and a gene encoding a recombinase present under the control of the promoter, and (2) an expressible desired gene and two target sequences of the recombinase present near the gene are present in the different molecules.

4. The vector according to claim 1, wherein the desired gene is interposed between two target sequences of the recombinase.

5. The vector according to claim 4, wherein a promoter controlling the desired gene is interposed between two target sequences of the recombinase.

6. The vector according to claim 1, wherein the specific transcription factor is a translation product of a tumor suppressor gene.

Aug 03
7. The vector according to claim 6, wherein the tumor suppressor gene is the p53 gene.

8. The vector according to claim 1, wherein the recombinase is Cre, and the target sequence of recombinase is loxP.

9. The vector according to claim 1, wherein the desired gene is

a gene encoding a suicide enzyme.

10. The vector according to claim 1, wherein the specific transcription factor is a tumor suppressor gene product, and the desired gene is a gene encoding a suicide enzyme.

> 11. The vector according to claim 10, wherein the tumor
suppressor gene is the p53 gene.

12. A host cell transformed with the vector according to any one of claims 1 to 11.

13. A method for selectively exterminating cells free from a specific transcription factor, the method comprising introducing the vector according to any one of claims 1 to 11 into host cells *in vitro*.